

(1) [each of said T cell epitope regions shows a positivity index of not less than approximately 100 when measured in a population of patients sensitive to allergen(s)] each of said T cell epitope peptides reacts with T cell clones, respectively specific to the T cell epitope peptides, derived from the patient sensitive to said allergens;

(2) [said multi-epitope peptide reacts with peripheral lymphocytes from at least not less than 70% of said population of patients sensitive to said allergen(s); and] said multi-epitope peptide reacts dose-dependently with peripheral lymphocytes from the patient sensitive to the allergens;

(3) said multi-epitope peptide does not substantially react with allergen-specific IgE antibodies of the [population of] patient[s] sensitive to [said] the allergen(s); and

(4) each of said T cell epitope peptides is restricted by at least two molecules of HLA class II molecules of the patient sensitive to the allergens, selected from the group consisting of DP, DO, and DR antigens.

Claim 7, line 1: Please delete "3" and insert --1--.

Please delete claim 2 and add the following new claims.

10. The peptide-based immunotherapeutic agent of claim 1, wherein the allergen-specific IgE antibodies do not cross-react with the different allergen molecules.

11. The peptide-based immunotherapeutic agent of claim 1, wherein said peptide contains an amino acid sequence described in SEQ. NO. 2.

12. The peptide-based immunotherapeutic agent of claim 1, wherein said peptide contains an amino acid sequence described in SEQ. NO. 3.

1
Sub D47
3

C

ba

11

immuno
carrier c

~~immuno~~
~~cross-re~~
~~immuno~~

immuno
ollen all

20. The peptide-based immunotherapeutic agent of claim 17, wherein a site that is processed in the antigen-presenting cells is inserted between each of the T cell epitope peptides.

1 21. The peptide-based immunotherapeutic agent of claim 20, wherein said site that
2 is processed in the antigen-presenting cells is an arginine dimer or a lysine dimer.

1 22. The peptide-based immunotherapeutic agent of claim 17, wherein said peptide
2 contains an amino acid sequence described in SEQ. No. 1.

1 23. The peptide-based immunotherapeutic agent of claim 17, wherein said peptide
2 contains an amino acid sequence described in SEQ. No. 2.

1 24. The peptide-based immunotherapeutic agent of claim 17, wherein said peptide
2 contains an amino acid sequence described in SEQ NO. 3.

1 25. The peptide-based immunotherapeutic agent of claim 17, wherein said peptide
2 contains an epitope restricted by at least one HLA class II molecule selected from
3 DRB5*0101, DRB4*0101, DQA1*0102 - DQB1*0602, DPA1*0101 - DPB1*0501, and
4 DPA1*0101-DPB1*0201.

1 26. The peptide-based immunotherapeutic agent of claim 17, wherein each of said
2 T cell epitope peptides consists of minimum core sequences with retaining effective T cell
3 reactivity.

1 27. The peptide-based immunotherapeutic agent of claim 26, wherein said core
2 sequence is ~~PKRVSNV~~ *SEQ NO. 7*
3

1 28. The peptide-based immunotherapeutic agent of claim 17, wherein said T cell
2 epitope peptides are analog peptides in which one or more amino acids of the T cell epitope
3 peptides are substituted.